		NTSB ID: MIA03FA034		Aircraft Registration Number: N1122Y	
		Occurrence Date: 12/25/2002		Most Critical Injury: Fatal	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Manteo	State NC	Zip Code 27954	Local Time 0100	Time Zone EST	
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Cessna		Model/Series 208B		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>HISTORY OF THE FLIGHT</p> <p>On December 25, 2002, about 0100 eastern standard time, a Cessna 208B, N1122Y, registered to Avion Capital Corporation, and operated by Telford Aviation, Inc., as a 14 CFR Part 91 positioning flight, crashed into Croatan Sound, near Manteo, North Carolina. Instrument meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed. The airplane received substantial damage and the airline transport-rated pilot was fatally injured. The flight last departed Elizabeth City, North Carolina, the same day, about 0030.</p> <p>A person identifying himself as the pilot of Telford Flight 1279 called the FAA Raleigh Automated Flight Service Station, on December 24, 2002, at 1507, requesting an outlook pilot weather briefing for a 1900 flight from Manteo, North Carolina to Raleigh, North Carolina. The pilot departed Manteo at about 1855, along with another pilot, in N1122Y, operating as Telford Flight 1279. They made a stop in Edenton, North Carolina, to pick up packages, and then continued to Raleigh, arriving about 2036. The other pilot stated that he and the pilot of N1122Y had the airplane refueled at Raleigh, with 20 gallons of fuel added to the left tank and 30 gallons added to the right tank. The other pilot flew back to Manteo with another pilot in another airplane. The accident pilot departed Raleigh by himself in N1122Y at about 2300, to Elizabeth City, North Carolina, as Telford Flight 1280. The flight arrived at Elizabeth City at about 0010, on December 25, 2002, and packages were unload. The aircraft operator stated the pilot was then scheduled to reposition the airplane from Elizabeth City to Manteo.</p> <p>At 0020, a pilot identifying himself as the pilot of N1122Y contacted the FAA Norfolk Approach, stating he was on the ground at Elizabeth City and requesting a cruise clearance to Manteo. The pilot was offered an instrument flight rules clearance to Manteo and at 0022, was issued the clearance to Manteo. At 0029, the pilot contacted Norfolk Approach and stated he was ready for takeoff on runway 01 at Elizabeth City. The controller instructed the pilot to fly runway heading and climb to 3,000 feet. At 0032, the controller advised the pilot that the flight was radar contact and for the pilot to fly heading 160 degrees. At 0034, the Norfolk Approach controller instructed the pilot to contact the FAA Washington Air Route Traffic Control Center.</p> <p>At 0034, the pilot of N1122Y contacted the controller at Washington Center, stating he was coming up on 3,000 feet. The controller acknowledged, and the pilot requested the non-directional beacon (NDB) approach to runway 5 at Dare County Airport, Manteo. At 0036, the controller instructed the pilot to fly heading 145 degrees for Manteo and fly direct to the NDB when he receives the signal. The pilot acknowledged and the controller also asked the pilot if he had the current weather for Manteo. The pilot responded that he did have the current weather. At 0043, the controller cleared the pilot for the NDB runway 5 approach at Manteo and to maintain 2,000 feet until the flight crossed the beacon outbound. The pilot acknowledged. At 0046, the controller informed the pilot that radar contact with the flight was lost and for the pilot to report a cancellation or a</p>					
FACTUAL REPORT - AVIATION					

National Transportation Safety Board

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NTSB ID: MIA03FA034

Occurrence Date: 12/25/2002

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Narrative (Continued)

downtime on his radio frequency. The pilot acknowledged. At 0057:21, the controller called the pilot and the pilot responded by reporting the flight was procedure turn inbound. No further transmissions were received from the pilot. When the pilot did not report that he was on the ground, and further radio contact could not be established, controllers initiated search and rescue efforts. The wreckage of the airplane was located in the waters of Croatan Sound, about 1.5 miles west of the Dare County Regional Airport about 1000. The pilot was not located in the airplane. The body of the pilot was located in the waters of Croatan Sound on February 11, 2003.

PERSONNEL INFORMATION

The pilot held a FAA airline transport pilot certificate with airplane multiengine land and commercial privileges airplane single engine land ratings, last issued on November 21, 1989. The pilot held a FAA flight instructor certificate with airplane single engine, multiengine, and instrument airplane ratings, issued on February 26, 2001. The pilot held a FAA second-class medical certificate issued on April 22, 2002, with limitations that corrective lenses be worn while exercising the privileges of the certificate. According to the airplane operator, at the time of the accident the pilot had accumulated about 19,091 total flight hours, with about 500 hours in the Cessna 208. The pilot had about 15,500 total hours in single engine airplanes and about 3,500 hours in multiengine airplanes. The pilot had about 1,900 hours actual instrument time and 700 hours of night time. The pilot had flown about 43 flight hours in the last 90 days, 9 flight hours in the last 30 days, and 5 flight hours in the last 24 hours. The pilot had been off duty from December 10, 2002 until the evening of December 23, 2002.

The pilot was hired by Telford Aviation, Inc. on April 4, 2000. He was qualified as pilot-in-command on the Cessna 208 in accordance with FAR Part 135 on April 5, 2000. The pilot received recurrent training in the Cessna 208 on October 2, 2002.

AIRPLANE INFORMATION

The airplane was a Cessna Aircraft Company model 208B, serial number 208B0392, manufactured in April 1994. At the time of the accident the airplane had accumulated about 5,229 total flight hours. The airplane was equipped with a Pratt and Whitney Canada, PT6A-114A turbo-propeller engine, which produces 675 shaft horsepower. The airplane was equipped with a McCauley model 3GFR34C703 propeller, which contained 3 blades.

Maintenance records showed the airplane was last inspected on December 16, 2002, when it received a Phase 9 inspection in accordance with the Telford Aviation, Inc., Approved Aircraft Inspection Program (AAIP). At the time of the accident, the airplane had accumulated about 20 flight hours since this inspection, the engine had accumulated 5,029 total flight hours since new, and the propeller had accumulated 1,912 flight hours since major overhaul. The airplanes static system, altimeters, and transponder were last tested on December 12, 2001.

METEOROLOGICAL INFORMATION

The Dare County Regional Airport, Manteo, NC, 0100 surface weather observation was wind from 350 at 5 knots, visibility 3 statute miles in mist, ceiling overcast at 300 feet agl, temperature 12 degrees C, dew point temperature 12 degrees C, altimeter setting 29.54 inHg. Instrument meteorological conditions prevailed at the time of the accident.

A review of weather information was performed by a meteorologists with the NTSB, Operational Factors Division, Washington, DC. The review concluded that during the flight from Elizabeth City to Manteo, the flight did not encounter icing conditions. Another pilot who flew from Raleigh to New Bern and then to Manteo about the time of the accident stated they did not encounter icing conditions.

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FACTUAL REPORT**AVIATION**

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Narrative (Continued)**WRECKAGE AND IMPACT INFORMATION**

The airplane was located in about 15 feet of water in Croatan Sound, about 1.5 miles west of the Dare County Regional Airport and about .25 miles north of the approach course to runway 5. All components of the airplane were located on or around the airplane wreckage, except for the propeller and portions of the belly cargo pod. The airplane was recovered from the water on December 28, 2002.

Examination of the airplane after recovery from the water showed that the aircraft structure was intact. The outboard right wing, belly cargo pod, nose landing gear, right main landing gear wheel, and engine mount had sustained damage from water impact and recovery operations. The undersides of the right and left wing had upward crushing of the skin. The propeller had separated from the engine propeller shaft when the retaining bolts pulled out of the propeller hub. The retaining bolts and material from the propeller hub remained in the propeller shaft.

Examination of the flight control systems showed that there was continuity within the aileron, rudder, elevator, and elevator trim, systems. The aileron trim system cable was separated at the chain to the trim tab on the right aileron do to impact forces. The aileron trim system was found in the 10-degree tab up position at the right aileron. The elevator trim system was found in the 5-degree tab up position. The wing flaps were found in the 20-degree extended position. The autopilot actuators for pitch and roll control were found disengaged.

The engine controls in the cockpit were found in the full forward position for engine power, propeller, and condition lever. The emergency power lever was found in the stowed position. The engine controls at the engine were found in the same position as the cockpit controls. The separation points in the engine mount system was consistent with overstress do to impact forces. The alternator belt was in place. The vacuum ejector system for gyro operation operated normally when air pressure was supplied to the system. The vacuum driven captain's attitude gyro and the electric driven left and right turn coordinator did not have any impact damage to the units and there was no scarring damage on the rotors. The pitot and static systems were unobstructed.

Examination of the cockpit showed that the pilot's door was unlocked and open. This was the position reported by recovery personnel when the airplane was first located in the water. The pilot's seatbelt and shoulder harness were found unbuckled. The emergency locator transmitter was found in the auto position. The battery expiration date was December 2004. The circuit boards were corroded do to water submersion and the battery had zero voltage do to water submersion. The hobbsmeter read 5229.1 hours. The pilot's altimeter was reading minus 20 feet and the setting was 29.55 inches HG, when examined on December 30, 2003. Examination of the light bulbs in the annunciator panel showed that none of the light bulbs had stretched filaments. The landing and taxi light bulbs did not have stretched filaments.

Disassembly examination of the left and right altimeters showed no evidence of failure or malfunction of the altimeters.

Disassembly inspection of the engine and engine accessories showed no evidence of failure or malfunction. The engine displayed contact signatures to it's internal components characteristic of the engine producing power at the time of impact.

Examination of the airframe fuel system showed the fuel caps were in place on the wing. Fuel was found in both fuel tanks and in all fuel lines. No obstructions were found in any fuel lines. The fuel selector valve operated normally and was found in the on position for both the left and right fuel tanks. The fuel boost pump was found in the normal position and the firewall shutoff valve was in the open position.

MEDICAL AND PATHOLOGICAL INFORMATION

National Transportation Safety Board

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Narrative (Continued)

The pilot was located in the waters of Croatan Sound, near Manteo, North Carolina, on February 11, 2003. Postmortem examination of the pilot was performed by Paul R. Spence, M.D., Forensic Pathologist, Greenville, North Carolina. The cause of death was attributed to saltwater drowning. No findings, which could be considered causal to the accident, were reported.

Postmortem toxicology studies on specimens obtained from the pilot were performed by the Office of the Chief Medical Examiner, Chapel Hill, North Carolina, and by the FAA Toxicology and Accident Research Laboratory, Oklahoma City, Oklahoma. The tests were positive for up to 38 mg/dL ethanol in blood and 19 percent carbon monoxide in blood. These levels were attributed to postmortem production.

TEST AND RESEARCH


Examination of the propeller shaft and the propeller retaining bolts was performed by the NTSB Materials Laboratory, Washington, DC. The damage to the propeller retaining bolts was consistent with a sudden impact to the propeller.


A Garmin GPSMAP 195, GPS receiver was found in the airplane after the accident. The unit was shipped to Garmin International, Inc., for readout. It was found that water intrusion into the case of the unit had caused a short to the memory circuit and no data could be extracted from the unit.


A review of the FAA instrument approach procedure for the NDB approach to runway 5 at the Manteo/Dare County Regional Airport shows that the minimum descent altitude for the approach is 640 feet agl.

ADDITIONAL INFORMATION

The airplane wreckage was released to Telford M. Allen, III, of Telford Aviation, on January 9, 2003. Components retained by the NTSB for further testing were returned to Telford Aviation.

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		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown					
Runway Surface Condition: Unknown					
Type Instrument Approach: ADF/NDB					
VFR Approach/Landing: Unknown					
Aircraft Information					
Aircraft Manufacturer Cessna		Model/Series 208B		Serial Number 208B0392	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Tricycle					
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt.	9062 LBS	Number of Engines: 1	
Engine Type: Turbo Prop	Engine Manufacturer: Pratt & Whitney Canada	Model/Series: PT6A-114A	Rated Power: 675 HP		
- Aircraft Inspection Information					
Type of Last Inspection AAIP	Date of Last Inspection 12/16/2002	Time Since Last Inspection 20 Hours	Airframe Total Time 5229 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner Avion Capital Corporation		Street Address 4451 Aircraft Drive			
		City Anchorage	State AK	Zip Code 99502	
Operator of Aircraft Telford Aviation, Inc.		Street Address 1 Cumberland Place			
		City Bangor	State ME	Zip Code 04401	
Operator Does Business As:			Operator Designator Code: FTSA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): On-demand Air Taxi					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Positioning					
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First Pilot Information																																																																																						
Name On File			City On File		State On File	Date of Birth On File	Age 62																																																																															
Sex: M	Seat Occupied: Left		Principal Profession: Civilian Pilot			Certificate Number: On File																																																																																
Certificate(s): Airline Transport																																																																																						
Airplane Rating(s): Multi-engine Land; Single-engine Land																																																																																						
Rotorcraft/Glider/LTA: None																																																																																						
Instrument Rating(s): Airplane																																																																																						
Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine; Instrument Airplane																																																																																						
Type Rating/Endorsement for Accident/Incident Aircraft? Yes					Current Biennial Flight Review? 10/03/2002																																																																																	
Medical Cert.: Class 2		Medical Cert. Status: Valid Medical--w/ waivers/lim.			Date of Last Medical Exam: 04/22/2002																																																																																	
<table border="1"> <tr> <th rowspan="2">- Flight Time Matrix</th> <th rowspan="2">All A/C</th> <th rowspan="2">This Make and Model</th> <th rowspan="2">Airplane Single Engine</th> <th rowspan="2">Airplane Multi-Engine</th> <th rowspan="2">Night</th> <th colspan="2">Instrument</th> <th rowspan="2">Rotorcraft</th> <th rowspan="2">Glider</th> <th rowspan="2">Lighter Than Air</th> </tr> <tr> <th>Actual</th> <th>Simulated</th> </tr> <tr> <td>Total Time</td> <td>19091</td> <td>500</td> <td>15500</td> <td>3500</td> <td>750</td> <td>1900</td> <td>200</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instructor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td>43</td> <td>43</td> <td>43</td> <td></td> <td>21</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>9</td> <td>9</td> <td>9</td> <td></td> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td>5</td> <td>5</td> <td>5</td> <td></td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air	Actual	Simulated	Total Time	19091	500	15500	3500	750	1900	200				Pilot In Command(PIC)											Instructor											Last 90 Days	43	43	43		21						Last 30 Days	9	9	9		4						Last 24 Hours	5	5	5		2					
- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument								Rotorcraft	Glider				Lighter Than Air																																																																			
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Last 30 Days	9	9	9		4																																																																																	
Last 24 Hours	5	5	5		2																																																																																	
Seatbelt Used? Yes		Shoulder Harness Used? Yes			Toxicology Performed? Yes		Second Pilot? No																																																																															
Flight Plan/Itinerary																																																																																						
Type of Flight Plan Filed: IFR																																																																																						
Departure Point		State		Airport Identifier		Departure Time		Time Zone																																																																														
Elizabeth City		NC		ECG		0035		EST																																																																														
Destination		State		Airport Identifier																																																																																		
Same as Accident/Incident Location				MQI																																																																																		
Type of Clearance: IFR																																																																																						
Type of Airspace: Class G																																																																																						
Weather Information																																																																																						
Source of Briefing: Flight Service Station; TV/Radio Weather																																																																																						
Method of Briefing: Aircraft Radio; Telephone																																																																																						


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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
MQI	0100	EST	14 Ft. MSL	2 NM	50 Deg. Mag.
Sky/Lowest Cloud Condition:				Ft. AGL	Condition of Light: Night/Dark
Lowest Ceiling: Overcast			300 Ft. AGL	Visibility: 3 SM	Altimeter: 29.55 "Hg
Temperature: 12 °C	Dew Point: 12 °C	Wind Direction: 350		Density Altitude: 0	Ft.
Wind Speed: 5	Gusts:	Weather Conditions at Accident Site: Instrument Conditions			
Visibility (RVR): Ft.	Visibility (RVV)	SM	Intensity of Precipitation:		
Restrictions to Visibility: Fog					
Type of Precipitation: None					

Accident Information					
Aircraft Damage:		Aircraft Fire:		Aircraft Explosion	
Classification:					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot	1				1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -	1				1
Other Ground					
- GRAND TOTAL -	1				1

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	Occurrence Type: Accident	
Administrative Information		
Investigator-In-Charge (IIC) Jeffrey L. Kennedy		
Additional Persons Participating in This Accident/Incident Investigation: Richard Litka FAA FSDO Greensboro, NC 27409 Todd Sigler Cessna Aircraft Company Wichita, KS 67209 Thomas Berthe Pratt and Whitney Canada Montreal, Telford Allen Telford Aviation, Inc. Bangor, ME 04401		
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